

REMARKS

Claim 21 has been objected to in the Office Action. Claim 21 has been amended accordingly. However, the recitation of the optical fiber and dispersion compensation unit forming an optical transmission module is clear.

Claims 13, 17 and 18 have been rejected under 35 USC 112, second paragraph. Claim 13 has been amended. Claims 17 and 18 are clear as recited. Two fibers can be claimed each respectively having a length and launch power.

Claims 11-16 and 19-21 have been rejected under 35 USC 103(a) as unpatentable over Essiambre. The rejection is respectfully traversed.

In response to the arguments, the Examiner states that Applicant fails to address the rationale for obviousness in the rejections and essentially argues that Essiambre does not anticipate the noted claimed features. Applicants respectfully disagree.

Applicants arguments were not based on anticipation as explained by the Examiner, but rather on lack of *prima facie* showing of obviousness on the part of the Office. In this context, the Examiner himself states that "Essiambre does not explicitly describe simultaneously transmitting two different data rate signals, with the second data rate higher than the first data rate." However, the Examiner relies on the statements that the references "generally discloses WDM transmission using signals '10 Gbps and higher' and using signals at 40 Gbps, where 40 Gbps requires pre-compensation (col. 2, lines 44-67)." According to the Examiner, this disclosure in Essiambre would have rendered simultaneous transmission of two different data rate signals, with the second data rate higher than the first data rate, as required by the claimed invention. This reasoning is not only flawed, but it is exactly the very problem associated with the prior art that Applicant's invention resolves. Indeed, the background of the instant invention explains that when optical signals transmitted at two different data transmission rates are used (for example 10Gbit/s and 40 Gbit/s), each WDM channel sent via an optical transmission system optimized for transmitting a first lower data transmission rate, the optical signals have a second higher data transmission rate become so distorted that reconstruction of these optical data signals at the end of the section is not possible. The claimed invention, on the other hand, requires a *pre-compensation* unit for pre-compensating the *second* signal is arranged *upstream* of the first length of optical fiber. This feature is not disclosed by the applied reference, nor would

it have been obvious to use a pre-compensation unit without the use of impermissible hindsight. As seen in Figure 1 of Essiambre, a *post-compensation* unit is used. The pre-compensation (i.e. pre-dispersion compensation) for the transmission in the reference is performed in the *post* amplifier for a *single* signal, as seen in col. 5, lines 20-45 and Fig. 1.

Claim 22 has been rejected under 35 USC 103(a) as unpatentable over Essiambre in view of Islam. The rejection is respectfully traversed for at least the same reasons presented in the arguments above.

Applicants acknowledge that claims 17 and 18 would be allowance if rewritten in independent form to include any base and intervening claims.

Entry of this amendment after-final is appropriate since the claims have been amended for improved clarity, and not reasons related to patentability. In view of the above, Applicants submit that this application is in condition for allowance. An indication of the same is solicited. The Commissioner is hereby authorized to charge deposit account 02-1818 for any fees which are due and owing, referencing Attorney Docket No. 119010-064.

Respectfully submitted,

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Dated: March 17, 2008